RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

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PATENT APPLICATION: US/10/518,927A TIME: 08:03:04

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      5 <120> TITLE OF INVENTION: DNA SEQUENCE AND PREPARATION OF GRASS POLLEN ALLERGEN Phl p
      7 <130> FILE REFERENCE: MERCK-2966
      9 <140> CURRENT APPLICATION NUMBER: US 10/518,927A
     10 <141> CURRENT FILING DATE: 2004-12-23
    12 <150> PRIOR APPLICATION NUMBER: PCT/EP2003/006092
    13 <151> PRIOR FILING DATE: 2003-06-11
    15 <160> NUMBER OF SEQ ID NOS: 52
    17 <170> SOFTWARE: PatentIn version 3.1
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W>						art	ific	ial 1	DNA :	ഭക്താര	ence							
" -					ION:					ocqu.								
									A 66	TILAN	- A	ari w	ad fr	rom (eemi	ance	d protei	n
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W>							1	DATA										
M>							_	_	-	ence								
					ION:				,									
			<pre><223> OTHER INFORMATION: <220> FEATURE:</pre>															
			<221> NAME/KEY: CDS															
			<221> NAME/KEY: CDS <222> LOCATION: (1)(1503)															
		<pre><222> LOCATION: (1)(1503) <223> OTHER INFORMATION:</pre>																
_				THER	INF	ORMA'	rion:	:										
W>																		
					ccg													48
		_	Phe	Pro	Pro		Ala	Ala	Lys	Glu	_	Phe	Leu	Gly	Cys		Val	
	333					5					10					15		
			_		ccg	_	_	_	_				_	_	_			96
	336	Lys	Glu	Ile	Pro	Pro	Arg	Leu	Leu	Tyr	Ala	Lys	Ser	Ser	Pro	Ala	Tyr	
	337				20					25					30			
	339	CCC	tca	gtc	ctg	ggg	cag	acc	atc	cgg	aac	tcg	cgg	tgg	tcg	tcg	ccg	144
	340	${\tt Pro}$	Ser	Val	Leu	Gly	Gln	Thr	Ile	Arg	Asn	Ser	Arg	Trp	Ser	Ser	Pro	
	341			35					40					45				
	343	gac	aac	gtg	aag	ccg	atc	tac	atc	gtc	acc	CCC	acc	aac	gcc	tcc	cac	192
	344	Asp	Asn	Val	Lys	Pro	Ile	Tyr	Ile	Val	Thr	Pro	Thr	Asn	Ala	Ser	His	
	345		50					55					60					
	347	atc	cag	tcc	gcc	gtg	gtg	tgc	ggc	cgc	cgg	cac	ggt	gtc	cgc	atc	cgc	240
	348	Ile	Gln	Ser	Ala	Val	Val	Cys	Gly	Arg	Arg	His	Gly	Val	Arg	Ile	Arg	
	349						70	_	_	_	_	75	_		_		80	
	351	gtg	cgc	agc	ggc	ggg	cac	gac	tac	qaq	qqc	ctc	tcg	tac	cqq	tcc	ctg	288
					Gly													
	353				-	85		-	•		90			•	_	95		
	355	caq	ccc	qaq	gag	ttc	acc	atc	atc	qac	ctt	agc	aaq	atq	caa	qcc	ata	336
		_			Glu		_	_	_	_		_	-	_		_		
	357				100					105			4		110			
		t.aa	ata	gac	999	aag	acc	cac	acq		t.aa	atc	gac	tcc		aca	cag	384
	360	Trp	Val	Asp	Gly	Lvs	Ala	Ara	Thr	Ala	Trn	Val	Asp	Ser	Glv	Ala	Gln	
	361			115	0-7	-1-			120				1102	125	0-7			
		ctc	aac	_	ctc	tac	tac	acc		cac	aad	aca	agt	-	ata	cta	aca	432
					Leu													492
	365	سات س	130	u	⊒¢u.	- Y -	- y -	135	-1C	****	-ya	ALG	140	110	VUI	سات س	1114	
		tta		~~~	~~~	ata	+~~		200	ata	~~~	ata		aaa	220	++~	aca	480
					ggc Gly													-10U
			210	HIG	GIA	vaı	_	P10	THE	тте	GIA		GIÀ	дту	ASII	FIIG		
	369		~			~~-	150		a+-			155	~~~	- + -			160	E20
	3 / I	ggc	ggc	gge	ttc	ggc	acg	cug	ccg	cgc	aag	Lac	ggc	acc	geg	gcc	yay	528

Input Set : A:\REVISED_SEQUENCE_LISTING.txt
Output Set: N:\CRF4\04032006\J518927A.raw

Please Note:

• 4

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:7; Xaa Pos. 6
Seq#:20; Xaa Pos. 8
Seg#:27; Xaa Pos. 14
Seq#:28; Xaa Pos. 6
Seq#:29; Xaa Pos. 3,6,8
Seq#:30; Xaa Pos. 2,9
Seq#:33; Xaa Pos. 14
Seg#:35; Xaa Pos. 14
Seg#:36; Xaa Pos. 14
Seq#:37; Xaa Pos. 4,5,14
Seq#:38; Xaa Pos. 4,5,14
Seq#:39; Xaa Pos. 4,5,14
Seq#:40; Xaa Pos. 4,5
Seq#:41; Xaa Pos. 6
Seq#:42; Xaa Pos. 3,6,8
Seq#:43; Xaa Pos. 2,9
Seq#:46; N Pos. 3,9,15,18,21,24
Seq#:47; N Pos. 6,12,15,18
Seq#:48; N Pos. 6,12,18,21
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/518,927A TIME: 08:03:05

DATE: 04/03/2006

```
L:25 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:31 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:42 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:33
L:42 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:39
L:313 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:319 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:330 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3, Line#:321
L:330 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3, Line#:327
L:601 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:607 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:618 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5, Line#:609
L:618 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5, Line#:615
L:896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:1057 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:1164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:1189 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1227 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:1294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:1446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1499 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
```